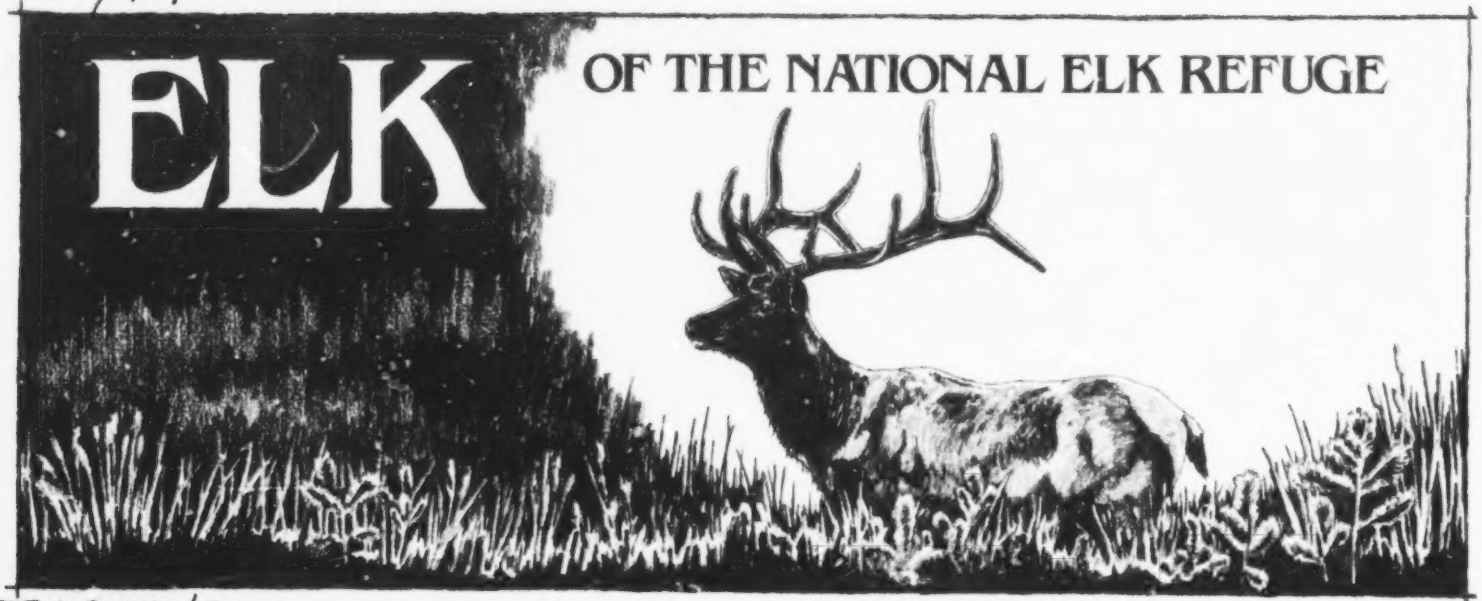
El 5/989

ELK

OF THE NATIONAL ELK REFUGE



I 49.44/2:

READEX FICHE best copy available

MANAGING A WILD ANIMAL

Q. What is the purpose of the National Elk Refuge?
A. The Refuge provides a winter home for thousands of elk which spend the summer in the surrounding mountains.
Q. Why was the Refuge created?
A. For two reasons. First, conflicts arose when ranchers entered Jackson Hole and the elk competed with cattle for forage. This conflict was alleviated when Congress created the National Elk Refuge on August 10, 1912. Second, there was concern for the welfare of the elk because their habitat was being converted to homesites, townsites, and roads. The 1,760 acres of purchased private land and 1,000 acres of reserved public land initially set aside as elk winter range between 1912 and 1916 were expanded by other acts, land acquisition, and donations. The Izaak Walton League launched a nationwide fund raising campaign and purchased an additional 1,760 acres which were turned over to the Government in 1927. The Refuge has since been enlarged to nearly 25,000 acres.
Q. Who manages the National Elk Refuge?
A. The U.S. Fish and Wildlife Service, which is part of the Department of the Interior.
Q. What are the major management practices?
A. The Refuge uses irrigation, seeding, prescribed burning, and other practices to grow as much natural forage as possible. This enhances elk winter habitat and reduces the need for supplemental feeding. To help the elk survive the critical winter months, they are fed pelleted alfalfa hay for about 2½ months during an average winter.
Q. How are elk numbers controlled?
A. A problem can be an excess of elk on a limited winter range. Also, feeding thousands of wintering elk is expensive, so a goal is to maintain the wintering herd at a maximum of 7,500 animals. Controlled hunting is allowed on the Refuge and on surrounding land to manage the herd. Controlling elk numbers to avoid overuse of the critical winter range serves to perpetuate the elk herd and its habitat.

FROM SEASON TO SEASON

Q. How are elk recognized?
A. Bulls are 4½ to 5 feet tall at the shoulder and weigh approximately 550 to 800 pounds. Cows weigh from 450 to 600 pounds. Elk are the second largest antlered animal, exceeded only by moose in size. Elk are light brown with darker heads and legs and lighter rump patches. Generally the cows are a darker color than the bulls. In winter, the coats turn to tawny grey. Adult bulls have large branched antlers.
Q. Where are the elk in the summer?
A. Elk leave the lower elevations on the Refuge in April and May and follow the receding snowline back into the higher country where they spend the summer. The elk travel distances varying from a few miles to 65 miles (straight line) from the Refuge to Grand Teton National Park, southern Yellowstone National Park, and National Forest lands to the north and northeast. The higher slopes and meadows are cooler and there are fewer bothersome insects. There also is a widely abundant food supply and a large undisturbed territory over which elk can roam and graze. A few elk remain on the Refuge during summer months near wooded areas.
Q. When do elk return to the Refuge?
A. From late October through December, elk follow traditional migration routes from the higher summer ranges to the lower winter ranges. Deepening snows force the elk to seek food at lower elevations and early blizzards can hasten the migration.
Q. When is the breeding season?
A. The breeding season (or rutting season) occurs in September and early October while the elk are in the high country. At this time, the "bugling" sounds of the mature bulls fill the mountains as they gather harems of cows and challenge rival bulls. During the rut, bulls vigorously defend their harems which may include up to 15 cows. The gestation period, from conception to birth is 8½ months.
Q. What time of year do they calve?
A. Between May 25 and June 15, cows seek secluded thickets on higher terrain to bear their young. The calves are reddish colored and spotted at birth and weigh 30 to 45 pounds. Cows typically have one calf. Twin births are very uncommon.
Q. Do they calve on the Refuge?
A. Very few calves are born on the Refuge since the majority of elk migrate off the Refuge during May and calving occurs during late May and early June.

LIFE AND DEATH

Q. What percentages of the herd are bulls, cows, and calves?
A. The Refuge elk herd consists of approximately 20 percent bulls, 20 percent calves, and 60 percent cows.
Q. What animals prey on elk?
A. Grizzly bears, black bears, cougars, and coyotes prey on elk on their summer range. On the Refuge, coyotes, eagles, magpies, and ravens clean up the carcasses of dead animals. By weeding out the weak and unfit, predators help maintain the herds in a healthy vigorous condition.
Q. What is the average age and how is it determined?
A. The majority of adult cows and bulls on the Refuge are between 3 and 10 years old. The oldest animals in the herd are 15 to 25 years old, but these represent a very small part of the herd. The age of an elk can be determined by examining tooth replacement, wear or annual dental rings.

THE ANTLER STORY

Q. Can you tell the age of an elk by the antlers?
A. Contrary to popular belief, there is no exact relationship between age and number of antler points, but the number

of points can be used, in a general way, to determine the age of an animal. Yearling bulls between 1 and 2 years old have short, unbranched antlers called spikes. The next year, the antlers usually have three or four points on each side. Older bulls display five, six, or sometimes seven points on each side. Bulls with six points per side are called royal bulls and those with seven points are called imperial bulls.

Q. What time of year do elk lose their antlers?

A. The largest bulls usually shed their antlers during March and April. The smaller bulls lose their antlers during April or early May.

Q. How long does it take to grow antlers?

A. New antlers begin to grow as soon as the old antlers are lost. New antlers grow during the summer and they reach maturity by mid-August. By this time, the "velvet" or outer blood-rich skin has dried and is rubbed off on small trees and shrubs. A bull's antlers are hard and shiny by the fall rutting season.

Q. What happens to the antlers after they are shed?

A. Antlers are chewed upon by mice, squirrels and other animals for their rich mineral content. Antlers shed on the Refuge may not be collected or removed by the public. They are gathered by local Boy Scout troops operating under a Special Use Permit issued by the Refuge. The antlers are then sold at public auction in the town square in Jackson. This annual event attracts people from all over the world. Bidding is lively as people purchase antlers for decorations, belt buckles, bolos, buttons, and love potions. Some funds collected by this project help the Scouts and some are recycled to the elk through the purchase of supplemental elk feed.

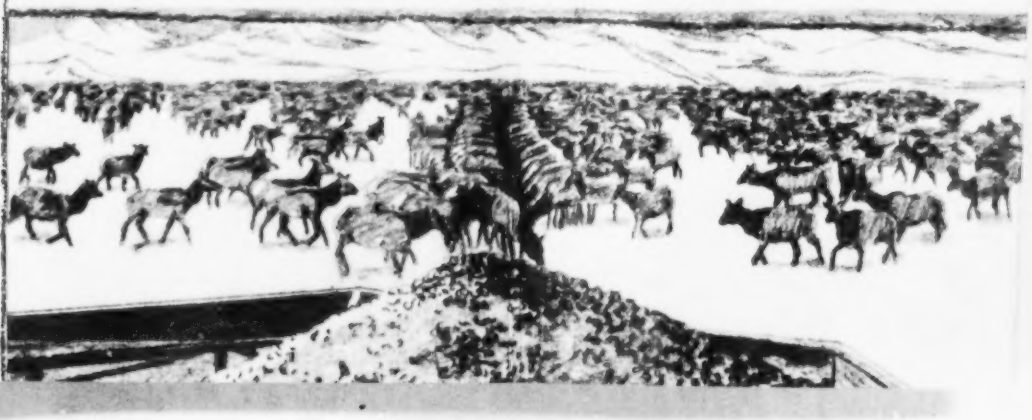
THE SEARCH FOR FOOD

Q. What do elk eat?

A. Most members of the deer family such as whitetail deer are primarily browsers feeding on the twigs and leaves of shrubs and trees. In contrast, elk are both browsers and grazers, feeding extensively on grasses and weeds as well as shrubs.

Q. Why are elk fed and what does the Refuge feed them?

A. Supplemental feeding is necessary during severe winter conditions when forage is covered by deep, crusted snow or ice. The herd is fed pelleted alfalfa hay which is made from pure pressed alfalfa hay. The 2 to 3 inch pellets are simply hay in another form. They are easier to handle than baled hay and can be distributed over a larger area to disperse the elk better. They have higher nutritional quality and are less wasteful than baled hay.



Q. How long does the Refuge feed them?
A. Elk stay on the Refuge for approximately 6 months each winter. They receive supplemental food for approximately 2½ months during the most severe winter weather. During most years, elk free range on natural forage for 3½ months. Feeding has been necessary during all but 9 years since 1912. During those nine winters, fewer elk were on the Refuge and reduced snow cover allowed those elk to feed entirely on natural vegetation.

Q. How much are the elk fed?
A. Elk are usually fed about 7-8 pounds of pelleted alfalfa hay per animal per day or about 30 tons per day for the entire herd.

Q. Where do the funds come from for feeding?
A. The National Elk Refuge does all of the feeding, furnishes the personnel and equipment and pays for nearly one-half of the pelleted hay. The State of Wyoming Game and Fish Department pays for about one-half of the feed with money derived from the sale of hunting licenses. The balance is paid for by the Boy Scouts with money derived from antler sales. As an example, during the winter of 1985-86, the cost of supplemental feed for one elk for one day was 46 cents, or $46.00 per animal for the winter. Thus it cost approximately $286,000. during that winter to feed 6,400 elk.

AN ELK LEGACY

Q. What did the elk do before white man arrived?
A. Some archaeologists believe that elk have wintered in Jackson Hole for 500 years. When pioneers settled in Jackson Hole at the turn of the century, there may have been as many as 25,000 elk in the valley. It is speculation whether or not Jackson elk migrated as far between summer and winter ranges as they do today and to what extent man's influence has altered their original behavior. Thousands of elk may have starved to death during severe winters.

Q. Are elk an endangered species?
A. No. More than 650,000 elk are spread across 10 western States and four Canadian Provinces with small populations in several other States.

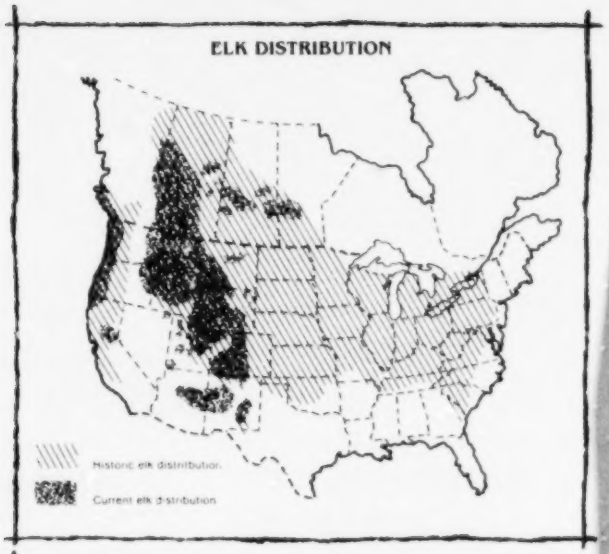
Q. Is their future secure?
A. Throughout the West, most elk summer range is on public land and is secure, but most winter range is in the privately owned valleys which are open to development. The Jackson elk herd is threatened by land developments on the migration route between the summer and winter ranges. The U.S. Fish and Wildlife Service continues to purchase land within the authorized refuge boundaries to safeguard the migration route and preserve the last remaining elk winter range.

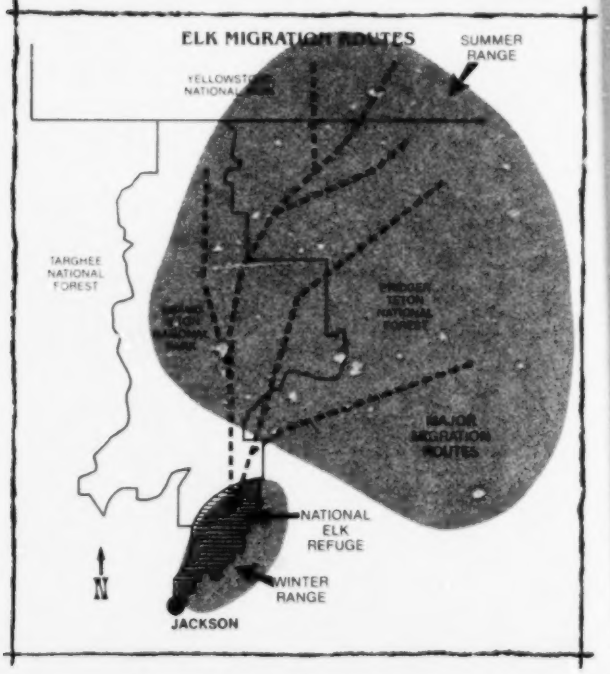
Q. Are elk found only in the West?
A. Elk herds once ranged through large parts of North America including several eastern States. As civilization slowly pushed westward, elk distribution was rapidly reduced to Western mountainous regions. By the turn of the century, elk had disappeared from over 90 percent of their range.

Q. Will elk ever return to their original ranges?
A. Probably not. Elk require large, undisturbed areas which no longer exist in their former ranges. Elk have been reintroduced in most suitable habitat in the West, but attempts to reintroduce elk in the East have been only partially successful.

ENJOYING ELK

Q. How can I see elk?
A. In winter, a concessionnaire takes visitors through the herd on horsedrawn sleighs. Hundreds or thousands of elk may be seen at close range. During summer, small herds of elk may be seen in Grand Teton and Yellowstone National Parks and in Bridger-Teton National Forest. Dusk and dawn are the best times to see elk during the warm months.





U.S. FISH AND WILDLIFE SERVICE
Department of the Interior

RF6-61550-6

GPO 675-882

Reprinted July, 1989